

Application No. 10/520,574  
Response to Office Action dated July 19, 2007

Docket No.: 13077\*98US  
(CH7779/STA.196-US)

### REMARKS

Claims 1-12 and 14-23 are currently pending in the instant application.

At the outset, Applicants and their undersigned representatives would like to thank the Examiner for the courtesy and helpfulness extended to Applicants' representative, Mr. Pezzner, during a telephone conversation with the Examiner subsequent to the mailing of the Office Action. During the telephone conversation, the Examiner indicated that an amendment of claim 13 incorporating the elements of claim 14 would receive favorable consideration. Accordingly, as discussed below, Applicants have canceled claim 13 and replaced it with new claim 23 combining the elements of previously presented claim 13 and currently pending claim 14.

New claim 23 introduces no new matter. A complete listing of all claims ever presented is set forth herein in accordance with 37 CFR §1.121(c)(1). The presentation of new claim 23 is at the suggestion of the Examiner and contains only subject matter previously set forth in claims 13 and 14, both claims having been examined and acted on substantively in the Office Action and the prior Office Action dated September 26, 2006 (hereinafter "the 2006 Office Action"). It is respectfully submitted that the amendments herein, in conjunction with the remarks set forth below, place the application in condition for allowance, or at the very least, place the application in a better condition for appeal. Accordingly, Applicants respectfully submit that the amendments made herein are proper after final rejection and entry thereof is respectfully requested.

#### Rejections Maintained by the Examiner in the Office Action:

In the Office Action, the Examiner maintains the previous rejection of claim 13 under 35 U.S.C. §102(b), as being anticipated by U.S. Patent No. 3,630,954 of Yates ("Yates"). The Examiner also maintains rejections of claim 13 under 35 U.S.C. §102(b), as being anticipated by U.S. Patent No. 5,603,805 of Andersson, *et al.* ("Andersson"), or U.S. Patent No. 5,643,414 of Johansson, *et al.* ("Johansson"). Additionally, the Examiner maintains the prior rejections of claims 14-20 under 35 U.S.C. §102(b), as being anticipated by each of Yates,

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Anderson and Johansson, and extends these rejections to claim 21 as well. The Examiner also maintains the rejection of claims 1-12 under 35 U.S.C. §103(a), as being obvious over Yates. The substance of the Examiner's rejections based upon Yates, Anderson and Johansson are set forth in the 2006 Office Action.

Rejections Under 35 U.S.C. §102:

With respect to claim 13, in the 2006 Office Action, the Examiner contends that each of Yates, Anderson and Johansson discloses the claimed silica sol. The Examiner notes that claim 13 is set forth in product-by-process fashion and that no patentable weight is given to the process limitations of the product-by-process claim. Applicants respectfully submit that the Examiner's rejections of claim 13 are rendered moot by the cancellation of claim 13. However, in the event that the Examiner is inclined to apply a similar rejection or rejections to new claim 23, Applicants respectfully traverse any such rejection for at least the following reasons.

The Examiner contends that the references each disclose the claimed silica sol. Applicants respectfully disagree. To begin with, *the claimed silica sol*, prepared by a process according to claim 1, *contains guanidinium ions and is free of amine*. The Examiner has not identified any portion of any of the three references which discloses a silica sol containing guanidinium ions and which is free of an amine. It is extremely well-settled that in order to support an anticipation rejection under 35 U.S.C. §102, each and every element of the claimed invention must be disclosed, either explicitly or implicitly, in a single reference.

None of Yates, Andersson or Johansson teaches a silica sol containing guanidinium ions and which is free of amine. For example, Yates very clearly discloses that the silica sol described therein comprises a co-stabilizer system which contains "... at least one amine selected from the group consisting of (I) compounds having the [amine] formula ... " shown therein. (See, Yates, col. 1, line 69, through col. 2, line 23). Andersson and Johansson, which are commonly owned and which have an inventor in common, are directed to related subject matter and contain very similar disclosures. The Andersson/Johansson disclosures do not appear to contain any reference to silica sols containing guanidinium ions. In fact, Applicants

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are unaware of any disclosure in either reference which is directed to the use or addition of a guanidine compound. Moreover, the Examiner has not set forth any specific reference to a column and line number location in either reference wherein the use of a guanidine compound is even mentioned.

Applicants also respectfully note that the Examiner has indicated by telephone that a claim directed to a silica sol having the elements set forth in claim 14 and previously pending claim 13 would receive favorable consideration. New claim 23 has been presented on this basis. Accordingly, Applicants respectfully submit that claim 23 is not anticipated by any of Yates, Andersson or Johansson.

Similarly, with respect to the anticipation rejections of claims 14-21, the Examiner has argued that each of the three cited references discloses the claimed silica sol. Applicants respectfully disagree as *the claimed silica sol contains guanidinium ions and is free of an amine*. As discussed above, none of Yates, Andersson or Johansson discusses or describes a silica sol containing guanidinium ions and which is free of an amine. In order to maintain a proper anticipation rejection, the Examiner must point to a teaching in at least one of the references wherein a silica sol comprising guanidinium ions and which is free of amine is disclosed. Applicants respectfully submit that no such teaching is contained in any of the references and therefore the Examiner's rejections of claims 14-21 under 35 U.S.C. §102 based upon Yates, Andersson and Johansson are improper. Thus, reconsideration and withdrawal of the rejections are respectfully requested.

**Rejection Under 35 U.S.C. §103:**

The Examiner has also maintained the obviousness rejection of claims 1-12 based on the Yates reference. Applicants respectfully traverse this rejection and the arguments and contentions set forth in support thereof for at least the following reason. *It is respectfully submitted that the Examiner's determination of the scope and content of the prior art as set forth in the 2006 Office Action is factually inaccurate.*

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The Examiner contends that "Yates teaches a process for preparing silica sol comprising reacting a fresh sol with guanidine compound in the presence of a base ... ." (See, the 2006 Office Action, page 5). Applicants respectfully submit that the only reference to guanidine compounds in the Yates reference is *for use as the base itself*, and then *only guanidine hydroxide* is described. In fact, as set forth in Example 8 of Yates, and as discussed in Applicants' own Specification at page 2, line 25 thereof, the only other reference to a guanidine compound in the Yates reference is the use of guanidine carbonate *to prepare the highly basic guanidine hydroxide*, wherein guanidine carbonate is reacted in stoichiometric proportion with calcium hydroxide to form guanidine hydroxide whereby calcium carbonate is precipitated and removed by filtration. (See, Yates, col. 11, lines 1-8).

In other words, Yates discloses the preparation of a silica sol in the presence of a base and an amine, wherein the base may comprise "any water-soluble *strong* monovalent organic or inorganic *base* having a basic disassociation constant greater than  $10^{-2}$  [, such as] guanidine hydroxide." (See, Yates, column 3, lines 41-49).

Yates fails to teach or suggest the use of guanidine carbonate in the preparation of a sol. Yates specifically directs the use of "strong" basic compounds having a basic dissociation constant of greater than  $10^{-2}$ . *The only suitable organic base compounds disclosed in Yates are hydroxides.* It is respectfully submitted that one of ordinary skill in the art would not be motivated to replace the specifically disclosed exemplary hydroxides described in Yates with guanidine carbonate which is not mentioned as being suitable and which does not appear to qualify as a strong monovalent basic compound as described in the Yates reference. Yates specifically discloses reacting guanidine carbonate with calcium hydroxide to prepare guanidine hydroxide. One of ordinary skill in the art would actually be led away from the use of the carbonate since Yates specifically describes a prior step to convert guanidine carbonate to the hydroxide. Such a preliminary step would be unnecessary if Yates contemplated or "suggested" using the carbonate during the formation of the sol.

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Reconsideration and withdrawal of the rejection of claims 1-12 under 35 U.S.C. §103(a) are respectfully requested.

In view of the remarks set forth above, Applicants submit that all pending claims patentably distinguish over the prior art of record and known to Applicants. Reconsideration and withdrawal of all rejections and a Notice of Allowance are therefore requested.

Respectfully submitted,

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